DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453

(707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1x.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-014074 Address: 333 Burma Road **Date Inspected:** 18-May-2010

City: Oakland, CA 94607

OSM Arrival Time: 1230 **Project Name:** SAS Superstructure **OSM Departure Time:** 1600 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

CWI Name: Bernard Docena **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component: OBG Sections**

Summary of Items Observed:

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and to monitor American Bridge/Fluor (ABF) welding operations.

The following observations were made:

- 1) At weld joint E4/E5 A1 thru A5: This QA Inspector QC personnel Tom Pasqualone and Jesus Cayabyab performing Ultrasonic Testing (UT).
- 2) At weld joint E4/E5 A-3; ABF welding personnel Jordan Hazelaar (#2135) was in the process of excavating repairs, please note these areas had been inspected and rejected by the QC personnel in the item above.
- 3) At weld joint W1/W2 C1 and C2; ABF welding personnel Rory Hogan (#3186) was performing Flux Cored Arc Welding (FCAW) from the outside with QC Inspector Bernard Docena present.
- 4) At weld joint E4/E4 C2; ABF welding personnel Mitch Sittinger (#0315) was in the process of excavating multiple weld repairs.

At weld joint E4/E5 – A1 thru A5 this QA Inspector randomly observed QC personnel Tom Pasqualone and Jesus Cayabyab performing Ultrasonic Testing (UT). QC Inspector Tom Pasqualone informed this QA Inspector he had completed the shear wave and longitudinal wave inspections on welds A1, A2 and A3 with the following results; weld A1had several areas rejected, weld A2 was accepted and weld A3 had several areas rejected. QC Inspector Tom Pasqualone stated he anticipated completing welds A4 and A5 early the next morning.

This QA Inspector randomly observed ABF welding personnel Jordan Hazelaar (#2135) start excavating two UT

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

rejected areas on weld E4/E5 - A3, just several feet from where QC Inspector Tom Pasqualone was performing UT inspections on weld E4/E5 – A4. ABF welding personnel Jordan Hazelaar (#2135) informed QC Inspector Tom Pasqualone and this QA Inspector he had discovered an intermittent slag line which was most likely the cause for the rejection at the location and depth the QC Inspector had marked adjacent to the weld. This QA Inspector performed random visual verification of the excavation and observed the slag indication.

At weld joint W1/W2 – C1 and C2 this QA Inspector ABF welding personnel Rory Hogan (#3186) was performing Flux Cored Arc Welding (FCAW) from the outside of the OBG section after back gouging and grinding. See photo below. This QA Inspector observed ABF welding personnel Rory Hogan (#3186) was ready to start welding and did so without a QC Inspector present. The extent of welding was a single pass approximately 2,000 mm in length. This QA Inspector performed a random verification of the following welding parameters; 235 amperes and 20.5 volts at a travel speed of 180 mm per minute. After completion of this weld pass QC Inspector Bernard Docena arrived at this location to monitor the welding. This QA Inspector previously observed QC Inspector Bernard Docena was present at W2/W3-C1 inside the OBG where QA Inspector Jojo Lizardo was present monitoring welding and QC functions. This QA Inspector asked QC Inspector Bernard Docena if he was covering both locations at the same time (inside and outside the OBG sections) and was informed that he currently was. This QA Inspector asked QC Inspector Bernard Docena if he aware QC personnel needed to monitor welding operations at a frequency whereas there is not a lapse of greater than 30 minutes. QC Inspector Bernard Docena stated he was aware of this requirement, that they (QC) were short handed at this time and that he felt he cover both locations within the required lapses in time.

Several minutes later, this QA Inspector observed Lead QC Inspector Leonard Cross on the top deck on the West side and asked if he was aware a single QC Inspector was to cover one welding location several OBG sections inside the West OBG and the other several OBG sections on the outside on scaffolding all at the same time. This QA Inspector was present when Lead QC Inspector Leonard Cross asked QC Inspector Jesus Cayabyab to cover the welding being performed inside the West OBG section at weld W2/W3-C1 and to inform QC Inspector Bernard Docena of the change. With two QC personnel covering the locations noted above QC coverage appeared to meet the contract requirements.

At weld joint E4/E4 – C2 this QA Inspector observed ABF welding personnel Mitch Sittinger (#0315) was in the process of excavating multiple weld repairs. This QA Inspector observed the following: two excavations parallel to each other; one several mm from the toe of the weld and the other towards the opposite toe of the weld, multiple single excavations started running parallel to the longitudinal axis of the weld. The total repair area was 600 mm in length and located 600 mm up from the same "D" (bottom plate) weld. See photo below. The QA Inspector observed the excavations had been done started with a grinder.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)





Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer